CALIFORNIA
ENERGY
COMMISSION

FORMS AND INSTRUCTIONS FOR SUBMITTING RETAIL ELECTRICITY PRICE DATA

In support of the
2007 Integrated Energy Policy Report

STAFF REPORT

December 2006
CEC-200-2006-003-SD

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Abstract

The staff of the California Energy Commission's Electricity Analysis Office prepared these instructions and forms to collect specific cost and sales data from selected investor-owned utilities, publicly owned utilities, and energy service providers in California. A final version of these instructions and forms will be issued in early 2007, following a public workshop on January 16, 2007 and an Energy Commission Business Meeting on January 31, 2007. Responses to this data request will be used to prepare a retail electricity price forecast for the years 2007 through 2018.

Keywords

Retail electricity price forecast, data request

Background

The California Energy Commission is requesting selected cost and sales information from each of California's largest electric investor-owned utilities (IOUs), publicly owned utilities (POUs), and energy service providers (ESPs). This information will be used by Energy Commission staff to forecast average retail electricity prices for 2007 through 2018. Average prices, not prices under specific rate schedules, will be projected for four classes of retail electricity customer in each IOU and POU service territory: residential, commercial, industrial, and agricultural. ESP prices will be forecasted for residential and non-residential customers only.

The initial use of this forecast will be as an input to the Energy Commission's forecast of electricity demand. Specifically, forecasted changes in electricity prices are assumed to affect how much electricity consumers will buy. In addition, an Energy Commission-adopted retail price forecast will be published as part of the *2007 Integrated Energy Policy Report* (*IEPR*).

This Energy Commission assessment is the only long-term forecast of retail electricity prices prepared by a California state agency. It does not duplicate other state-agency work.

The Energy Commission uses the retail price forecast to evaluate the cost-effectiveness of state energy policies. For example, it evaluates the economics of proposed changes to the Title 24 building energy efficiency standards using the forecast. Another Energy Commission use of the retail price forecast is for calculating paybacks for energy-saving equipment installations on public buildings.

The Energy Commission's adopted retail price forecast is used by other government agencies to budget for their facilities' utility bills. Throughout the year, Energy Commission staff also directs the public to its published retail price forecast. Public uses of the retail price forecast include budgeting for electricity bills and evaluating the cost-effectiveness of energy efficiency and distributed generation projects.

The state law mandating the *IEPR*, Chapter 568 of the Statutes of 2002, requires the Energy Commission to conduct an "assessment of …the outlook for…retail prices…for…electricity…under current market structures and expected market conditions."[1] To perform this forecast, the Energy Commission is authorized to "require submission of demand forecasts, resource plans, market assessments, and related outlooks from electric…utilities…and other market participants."[2] For this price forecast, "other market participants" are the state's major ESPs providing electricity services to direct access (DA) customers within the service territories of California's three largest electric IOUs.

[1] Public Resources Code Section 25303 (a)(1)
[2] Public Resources Code Section 25301 (a)

This data request is one of three requests issued to date by the Energy Commission to California's electric utilities and ESPs for the *2007 IEPR*. In October 2006, the staff issued CEC-200-2006-001-CMD, requesting data to support an electricity demand forecast. The staff issued CEC-100-2006-002-CMF on January 5, 2007, requesting copies of utilities' and ESPs' resource (procurement) plans to support the Energy Commission's assessment of long-term electricity supply. Each electric utility or ESP response to this retail-price data request should be consistent with the demand forecasts and electricity resource (procurement) plans submitted to the Energy Commission under these two previous data requests (i.e., data submitted under *Demand Forms 1.1 through 6* and *Supply Forms S-1 through S-5,* as applicable).

If respondents have questions about the information being requested, or find a part of these instructions to be ambiguous, Energy Commission staff will work with utility or ESP staff to clarify what information is being requested. General questions about the forms or instructions should be directed to Mignon Marks at mmarks@energy.state.ca.us or (916) 654-4732 or to Ruben Tavares at rtavares@energy.state.ca.us or (916) 654-5171. More specific questions may be directed to the following Electricity Analysis Office staff members, who have been assigned to prepare retail price forecasts for the following IOUs, POUs, and ESPs:

Staff Contacts	**Utilities and ESPs**
Mignon Marks mmarks@energy.state.ca.us (916) 654-4732	APS Energy Services, Constellation NewEnergy, Pilot Power Group, Sempra Energy Solutions, Strategic Energy
Mary Ann Miller mmiller@energy.state.ca.us (916) 654-4813	SDG&E, MID, TID, IID, Redding
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Filing Instructions

When to File

In adopting these *Forms and Instructions*, the Energy Commission is requiring that the utilities and ESPs file the specified cost and sales data, using the provided forms, on or before March 2, 2007 [tentative date].

At a later date, the *IEPR* Committee, comprised of two Energy Commissioners, may direct additional data be filed to assess particular scenarios, topical issues, or policy proposals.

Who Must File

Every electric utility and energy service provider in California with retail electricity customers and whose peak retail loads were greater than 200 MW in either 2005 or 2006 must file the requested data, using the applicable forms and according to these written instructions.

The Energy Commission staff has identified the following electric utilities and ESPs that it believes meet the 200 MW criterion:

- IOUs – Pacific Gas and Electric (PG&E), San Diego Gas and Electric (SDG&E), and Southern California Edison (SCE).

- POUs – Sacramento Municipal Utility District, Los Angeles Department of Water and Power, Modesto Irrigation District, Turlock Irrigation District, Imperial Irrigation District, and the municipal utilities of Burbank, Glendale, Pasadena, Roseville, Anaheim, Riverside, Redding, and Santa Clara (Silicon Valley Power).

- ESPs – APS Energy Services, Pilot Power Group, Strategic Energy, Sempra Energy Solutions, Constellation New Energy, Inc.

The table on Page 5 identifies which forms each IOU, POU or ESP is responsible for completing and submitting to the Energy Commission.

Exemptions for Small Load-Serving Entities

For this specific *IEPR* proceeding, the Energy Commission is not requesting long-term forecast data using these forms from any utility or ESP with peak retail loads less than 200 MW in both 2005 and 2006.

What Must be Filed

To expedite the data-collection-and-submittal process, an Excel Workbook (.xls file), containing labeled tabs for each Worksheet (required form) has been prepared for each IOU, POU, and ESP. Once adopted by the Energy Commission, this customized Excel Workbook will be e-mailed to each IOU, POU, and ESP. In addition, templates of the IOU, POU, and ESP forms will be posted as Excel Workbooks on the Energy Commission website at:

www.energy.ca.gov/2007_energypolicy/datacollection/

Draft versions of these forms and instructions will be posted at: www.energy.ca.gov/2007_energypolicy/documents/ under the "Workshops & Meetings" subheading and the listing for the *January 16 – Staff Workshop on Electricity Price Data Requests*.

Respondents are required to provide the following:

- A brief cover letter, addressed to the Energy Commission's Docket Office and referencing Docket No. **06-IEP-1H**
- A compact disc containing all required data that has been stored in the appropriate Excel Workbook, plus any other electronic files in Microsoft Word or Excel, and
- One paper copy of each completed data form (Excel Worksheet) and a paper copy of each Microsoft Word file.

Do not submit any electronic data in portable document format (PDF).

If any requested data are not applicable to a respondent, that portion of the Worksheet can be left blank. The Energy Commission staff, however, requests that respondents include written explanations (e.g., in cover letters) highlighting why any particular data request is not applicable. For example, if an ESP has no residential customers, only non-residential cost and sales information would be submitted with a written statement explaining that the ESP "has no residential customers."

Load-Serving Entity	Revenue Requirements/ Total Estimated Costs	Revenue Requirements/ Cost Allocation by Customer Class/Type	Sales by Customer Class/Type	Sales by C&I Rates and NAICS	Residential Sales by Baseline Percentages	Pricing Factors for Purchased Power
PG&E	Form 1.a (IOU)	Form 1.b (IOU-Bundled) and Form 1.b (IOU-DA)	Form 1.c (IOU)	Form 2	Form 3	Form 4
SCE	Form 1.a (IOU)	Form 1.b (IOU-Bundled) and Form 1.b (IOU-DA)	Form 1.c (IOU)	Form 2	Form 3	Form 4
SDG&E	Form 1.a (IOU)	Form 1.b (IOU-Bundled) and Form 1.b (IOU-DA)	Form 1.c (IOU)	Form 2	Form 3	Form 4
Anaheim	Form 1.a (POU)	Form 1.b (POU)	Form 1.c (POU)	Form 2		Form 4
Burbank	Form 1.a (POU)	Form 1.b (POU)	Form 1.c (POU)			Form 4
Glendale	Form 1.a (POU)	Form 1.b (POU)	Form 1.c (POU)	Form 2		Form 4
Imperial Irrigation District	Form 1.a (POU)	Form 1.b (POU)	Form 1.c (POU)	Form 2		Form 4
LADWP	Form 1.a (POU)	Form 1.b (POU)	Form 1.c (POU)	Form 2		Form 4
Modesto Irrigation District	Form 1.a (POU)	Form 1.b (POU)	Form 1.c (POU)			Form 4
Pasadena	Form 1.a (POU)	Form 1.b (POU)	Form 1.c (POU)	Form 2		Form 4
Redding	Form 1.a (POU)	Form 1.b (POU)	Form 1.c (POU)			Form 4
Riverside	Form 1.a (POU)	Form 1.b (POU)	Form 1.c (POU)	Form 2		Form 4
Roseville	Form 1.a (POU)	Form 1.b (POU)	Form 1.c (POU)	Form 2		Form 4
Silicon Valley Power	Form 1.a (POU)	Form 1.b (POU)	Form 1.c (POU)			Form 4
SMUD	Form 1.a (POU)	Form 1.b (POU)	Form 1.c (POU)	Form 2		Form 4
Turlock Irrigation District	Form 1.a (POU)	Form 1.b (POU)	Form 1.c (POU)			Form 4
APS	Form 1.a (ESP)	Form 1.b (ESP)	Form 1.c (ESP)			
Constellation New Energy	Form 1.a (ESP)	Form 1.b (ESP)	Form 1.c (ESP)			
Pilot Power Group	Form 1.a (ESP)	Form 1.b (ESP)	Form 1.c (ESP)			
Sempra Energy Solutions	Form 1.a (ESP)	Form 1.b (ESP)	Form 1.c (ESP)			
Strategic Energy	Form 1.a (ESP)	Form 1.b (ESP)	Form 1.c (ESP)			

Where to File Completed Forms

Once completed, please submit all forms to:

California Energy Commission
Docket Office
Attention: **Docket 06-IEP-1H**
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

Data that is submitted with an Application for Confidential Designation, however, must be sent to the Executive Director of the Energy Commission rather than to the Docket Office, as explained in the next section.

How to Apply for Confidential Designation of Submitted Data

To the extent that a utility or ESP can demonstrate that data provided to the Energy Commission would, if made public, be harmful to its competitive position, the Energy Commission will honor such confidentiality. A process for requesting confidential designation of all or a portion of the utility's or ESP's submitted data is described below.

The Executive Director of the Energy Commission has overall responsibility for determining what information provided to the Energy Commission with an application for confidential designation warrants that classification and handling. Parties must make a separate, written application to the Executive Director that specifies which data, within the body of all submitted material, the confidential designation would pertain to.

The application must include three components:

1) A printed cover letter bearing the following address:

   Executive Director
   California Energy Commission
   1516 Ninth Street, MS 39
   Sacramento, California 95814-5504

   (The required contents of the cover letter are defined below.)

2) The data stored in a compact disc with the Excel Workbook and other electronic files. The compact disc must be marked with the name of the electric utility or ESP and with the following sub-docket number: **Docket #06-IEP-1H**.

3) A “penalty of perjury” certification printed on the electric utility’s or ESP’s letterhead containing the following paragraph, signature line, and signature:

> “I certify under penalty of perjury that the information contained in this application for confidential designation is true, correct, and complete to the best of my knowledge. I also certify that I am authorized to make this application and certification on behalf of (name of the electric utility of the ESP).”

Cover letters will serve as the respondent’s *Application for Confidential Designation* (*Application*). Certain categories of data provided to the Energy Commission will receive this designation almost automatically. The types of data that are eligible for this nearly automatic designation and the process for obtaining this confidential designation are specified in Section 2505(a)(5) of the Energy Commission’s regulations (found in Title 20 of the California Code of Regulations). These categories include specific hourly generation of electric power plants, fuel cost data, and some energy price data.

All Applications submitted to the Executive Director for rendering a decision must contain the following information:

1) Identification of the information being submitted, including title, date, size (for example, pages, sheets, MB), and sub-docket number;

2) Description of the data for which confidentiality is being requested (for example, particular contract categories, specific narratives, and time periods);

3) Description of the length of time for which confidentiality is being sought, with an appropriate justification, for each confidential data category request;

4) Identification of applicable provisions of the California Public Records Act (Government Code Section 6250 *et seq*.), and/or other laws, for each confidential data category request;

5) A statement attesting a) that the specific records to be withheld from public disclosure are exempt under provisions of the Government Code, or b) that the public interest in non-disclosure of these particular facts clearly outweighs the public interest in disclosure; and

6) A statement that describes how each category of confidential data may be aggregated with other data for public disclosure.

Both historical and forecasted energy sales data may be disclosed if reported at the following levels:

- For individual ESPs, data may be aggregated at the statewide level by major customer sector;

- For the sum of all ESPs, data may be aggregated at the service area, planning area, or statewide levels by major customer sector;

- For the total sales of the sum of all electric retailers, data may be aggregated at the county level by major generator, utility, and electric service provider groups as these groups are defined by the U.S. Census Bureau in their North American Industry Classification System (NAICS) tables.

The Executive Director of the Energy Commission has 30 days to render a decision on a complete *Application*. Confidentiality determination letters are signed by the Executive Director. The applicant has 14 calendar days to appeal the Executive Director's decision.

An applicant can request confidentiality at any time, but the Energy Commission strongly encourages filers to provide data and any confidentiality requests concurrently.

More specific questions about confidentiality may be directed to Fernando DeLeon at fdeleon@energy.state.ca.us or (916) 654-4873.

Applications deemed incomplete in any of the three areas will not be docketed by Energy Commission staff. Instead, incomplete applications will be placed in a "suspense" file and the filer will be notified by mail and e-mail about deficiencies in the application. The filer has 14 calendar days to correct the deficiencies in the application and replace the deficient CD, cover letter, or "penalty of perjury" certification to the Energy Commission. After 14 days, all information associated with the deficient application for confidential designation (based on the three components listed above) will be deemed public information and docketed accordingly.

Instructions for Retail Price Forecasting Forms

The Energy Commission staff prepared a separate set of Forms 1.a through 1.c (Form 1's) for IOUs, POUs, and ESPs. IOUs need only complete those Form 1's designated with an "(IOU)" following the numerical coding. Similarly, the POUs need only complete the Form 1's with a "(POU)," and ESPs need only complete the Form 1's with "(ESP)." Only selected IOUs and POUs are asked to complete Form 2. Only IOUs are asked to complete Form 3. And, all IOUs, POUs, and ESPs are asked to complete Form 4.

Provide Costs in Nominal Dollars

All cost data are to be provided in nominal (current-year) dollars, rather than in real (or constant) dollars. Historical cost information should also be provided in nominal dollars.

The Energy Commission staff intends to convert all respondents' costs from nominal dollars to real dollars, using a Gross Domestic Product implicit price deflator series.

Provide Costs in Thousands of Dollars

For many electric utilities, some categories of costs will amount to millions of dollars each year. The Energy Commission staff requests that all costs be rounded off into thousands of dollars. For example, $15,000,000 would be reported as $15,000.

General Instructions for Investor-Owned Utility Forms 1.a through 1.c

Forms 1.a through 1.c (IOU) were designed to collect cost and sales information useful for projecting average-annual prices per kilowatt-hour by customer type. Form 1.a collects a detail breakout of each IOU's projected annual revenue requirements. Form 1.b captures how each IOU will recover its projected annual revenue requirements from types of bundled and DA customers. Form 1.c gathers each IOU's forecasted retail electricity sales for these bundled-customer classes and direct-access customers.

Specific Instructions for Form 1.a (IOU)

The purpose of this form is to collect annual projections of total revenue requirements without double-counting any costs. Greater detail is requested in the generation-cost category, because it is the largest portion of IOUs' electricity rates.

Form 1.a (IOU) identifies 12 major revenue-requirement categories, most of which are based on what is displayed in IOUs' electricity bills for retail customers. These categories are Generation, Transmission, Distribution, Nuclear Decommissioning, Public Purpose Programs, Department of Water Resources (DWR) Bond Charge, Fixed Transition Amount/Trust Transfer Account, On-Going Competitive Transition Charge, Regulatory Asset for Energy Recovery Bond (PG&E Only), Taxes and Franchise Fees, and Other Costs Not Already Reported.

The following instructions explain what information to report and project for these categories.

Generation Revenue Requirements

The IOUs are requested to base their forecasts of generation revenue requirements upon the same quantities and types of electricity that they reported to the Energy Commission in their electricity-resource-plan submittals (e.g., responses in Supply Form S-2). The generation section of Form 1.a (IOU), therefore, does not ask the IOUs how much electricity they expect to generate or purchase each year.

The Energy Commission staff divided the generation section of Form 1.a into six subcategories: utility-owned/retained generation and five types of purchased power.

The utility-owned/retained generation section is further subdivided into six types of power plants:

- Nuclear
- Conventional Hydroelectric (not eligible for Renewable Portfolio Standard (RPS) compliance)
- Hydroelectric Pumped Storage (not eligible for RPS compliance)
- Natural Gas-Fired (both combined cycle power plants and simple/single cycle units)
- Coal
- RPS "Eligible" Renewables (sum of all types of RPS-eligible generation)

The following five cost subcategories should be reported for each type of utility-owned generating facility: total annual operations and maintenance (O&M) expenses, fuel costs, depreciation, return on investment, and "all other" costs. For conventional hydroelectric generation, projected "fuel" costs are for water rights. "Fuel" costs for hydroelectric pumped storage are the energy costs associated with off-peak pumping.

For utility owned/retained generation that is natural gas-fired or coal-fired, please provide the average annual fuel price used to project natural gas and coal fuel

costs. Please report these average annual prices (both natural gas and coal) in dollars per million British Thermal Units.

The Energy Commission-provided Excel Worksheet will subtotal each year's projected costs for each type of utility-owned generation. In addition, it will subtotal costs for all types of utility-owned generation.

Form 1.a (IOU) also asks each IOU for an estimate of its future costs for purchased power. These purchases would be made using CPUC-authorized procurement products. Please provide estimates of projected annual costs for each the following categories of purchased power:

- Procurement energy efficiency
- DWR contracts
- Supply contracts
- Residual market transactions (i.e., short-term and spot market purchases), and
- Payments to the California Independent System Operator for market charges (i.e., ancillary services, market uplifts, and energy).

"Procurement energy efficiency" resources are those financed through the generation component of an IOU's rates rather than through its Public Purpose Programs.

The Energy Commission staff requests that each IOU provide annual cost projections for the following types of electricity supply contract:

- DWR contracts – by "must-take," "dispatchable," and "renewable"[3]
- Supply contracts -- by qualifying facilities (QFs), non-QF renewables, and all other bilateral contracts, and
- Residual market transactions – by capacity and energy contracts.

QF contract costs that are recovered through the On-going Competitive Transition Charge should not be included in this section of Form 1.a because a separate "On-going CTC" section exists for reporting those contract costs.

Renewable energy generation costs that were reported as DWR contracts should not be reported again under "Supply Contracts."

Transmission Revenue Requirements

This section of Form 1.a (IOU) is for collecting annual cost projections for each IOU's Federal Energy Regulatory Commission (FERC)-jurisdictional transmission assets. Energy Commission staff requests annual transmission-related cost projections using the following, five categories:

[3] The Energy Commission staff is not asking for any further cost details of DWR contracts (e.g., variable costs of dispatchable resources).

- Operations and maintenance
- Depreciation
- Return on investment
- Payments to the California Independent System Operator (ISO) for Transmission-related charges (i.e., transmission access charges, grid management charges, and the FERC annual charge assessment), and
- All other costs (e.g. General and Administrative).

Distribution Revenue Requirements

This section of Form 1.a (IOU) is for projecting annual costs for each IOU's CPUC-jurisdictional distribution assets. Energy Commission staff requests distribution asset-related cost information be forecasted using the following categories:

- Operations and maintenance
- Depreciation expense
- Return on investment
- All Other costs (e.g. General and Administrative).

In addition, IOUs' Distribution Revenue Requirement recovers IOU costs for implementing the following four programs:

- Self Generation Incentive Program
- Demand Response Program
- Advanced Metering Infrastructure, and
- California Solar Initiative

The Energy Commission staff requests that the IOUs project total annual costs to implement each of the above-listed programs.

Nuclear Decommissioning

IOUs with cost responsibility for decommissioning a nuclear power plant are requested to estimate the future annual costs in this section of Form 1.a (IOU).

Public Purpose Programs

This section of Form 1.a (IOU) collects annual cost projections for implementing each of the following public purpose programs:

- Low-income programs (including subsidies for medical/life-support equipment users)
- Energy efficiency
- Public interest energy research and development, and
- Renewable energy

The Energy Commission staff seeks annual cost estimates only for those public-purpose programs that are funded by ratepayers through the electricity Public Goods Charge.

DWR Bond Charge

The Energy Commission staff requests each IOU to provide its forecast of annual costs for DWR revenue bond charges.

Fixed Transition Amount/Trust Transfer Account

This section of Form 1.a collects each IOU's annual forecast of costs associated with repaying revenue bonds issued to reduce rates for residential and small commercial customers under California's electric industry restructuring plan. PG&E calls its rate reduction bond charge the "Fixed Transition Amount," while SCE and SDG&E refer to it as the "Trust Transfer Account."

On-Going Competitive Transition Charge

Each IOU is requested to project total annual costs to be collected through the on-going competitive transition charge. Energy Commission staff is not requesting a detailed break-out between generation (e.g., CTC-eligible QF costs) and other costs included in this charge.

Regulatory Asset for Energy Cost Recovery Bond (PG&E Only)

Energy Commission staff requests that PG&E staff provide an annual projection of costs for its Energy Cost Recovery Bonds.

Taxes and Franchise Fees

Please provide an annual estimate of future revenue requirements for taxes and franchise fees. Taxes may include federal income, State Corporation Franchise, property, payroll, business, and Superfund taxes. Franchise fees are those levied by city and county governments.

Other Costs Not Already Reported

Although the Energy Commission staff attempted to identify all major revenue-requirement categories in Form 1.a (IOU), the IOUs are requested to include a forecast of any other costs not already reported. necessary to provide a complete picture of its total revenue requirements. These "other" costs need not be named.

Total Revenue Requirements

The Excel Worksheet will add up all of the separate costs to produce total revenue requirements. The Workshop also duplicates the annual values for total revenue requirements onto the top rows of Form 1.b (IOU-Bundled) and Form 1.b (IOU-DA).

Specific Instructions for Form 1.b (IOU-Bundled)

Form 1.b (IOU-Bundled) was created to determine how each IOU will allocate its revenue requirements among its bundled-customer classes. (A separate form, Form 1.b (IOU-Direct Access) collects IOUs' projections on what portion of their total revenue requirements will be collected from direct-access customers: those receiving electricity supplies from an ESP, but receiving electricity delivery services from the IOU.)

Form 1.b (IOU-Bundled) focuses on the rate components through which the IOU collects the majority of its revenue requirements: the generation component and the distribution component. Energy Commission staff requests each IOU to provide a detailed break-out of its total forecasted revenue requirements for the generation and distribution rate components.

All other revenue requirement categories (e.g., transmission, Public Purpose Programs, etc.) should be aggregated. Please combine all other revenue requirement categories (e.g., transmission, nuclear decommissioning, public purpose programs, DWR bond charge, rate reduction bond charge, on-going CTC charge) in "All Other Revenue Requirements" section of Form 1.b (IOU-Bundled). Each IOU is asked to sum up annual revenue requirements for all of these other categories and then show on Form 1.b (IOU-Bundled) how much of this sum of "other revenue requirements" will be collected annually from each class of bundled customer, as defined below.

Form 1.b (IOU-Bundled) identifies five classes of bundled customers:

- Residential/Domestic
- Commercial
- Industrial
- Agricultural, and
- All other customer classes (e.g., street lighting).

The customer classes listed above match those used by Energy Commission staff to forecast electrical demand, however, they may not match how some utilities define their commercial and industrial customer classes. Some IOUs define their commercial and industrial customers by size only (e.g., "small," medium," and "large"), based on average monthly consumption and have rate schedules for similar-sized commercial and industrial customers. For example, small commercial and small industrial customers can be on the same rate schedule.

Thus, completing Form 1.b (IOU-Bundled) may be a challenge for IOUs with size-based systems for classifying commercial and industrial customers, because rate schedules (and forecasted sales revenue) are not linked directly to discrete classes of "commercial" and "industrial" customers.

The Energy Commission staff recognizes this problem and recommends the following, temporary solution. To overcome potential differences in how the Energy Commission and individual IOUs define "commercial" and "industrial" classes, the Energy Commission staff requests that those IOUs with size-based rate schedules use the following approach to assign rate schedules to either the commercial or industrial classes:

- Use rate schedules for "small" and "medium"-sized customers as the proxy for all "commercial" customers
- Use rate schedules for "large"-sized customers as the proxy for "industrial" customers.

Specific Instructions for Form 1.b (IOU-Direct Access)

The IOUs are requested to complete Form 1.b (IOU-Direct Access) by projecting the annual total of revenue requirements they intend to collect from DA customers. Energy Commission staff is not requesting a detailed breakout of projected costs by revenue-requirement category for this type of electricity customers. For example, the Energy Commission staff is not asking for a separate revenue-requirements forecast for the Direct Access Cost Responsibility Surcharge.

It does, however, request that each IOU separate out and report the portion of its annual revenue requirements it intends to collect from the two types of DA customer: residential and non-residential (i.e., all types of non-residential customer).

Specific Instructions for Form 1.c (IOU)

This form collects each IOU's sales data by selected bundled customer class and its projection of electricity sales by ESPs to direct access customers. The Energy Commission staff requests each IOU to provide a forecast of retail sales of electricity – in megawatt-hours (MWH) – by the following customer classes:

- Residential
- Commercial
- Industrial
- Agricultural, and
- All Other Customer Classes.

Forecasted retail sales provided by IOUs in Form 1.c should be consistent with the sales forecasts submitted earlier to the Energy Commission in the following Demand Forecast Forms:

- Forecast of Sales to Bundled Customers – Form 1.1 (Retail Sales of Electricity by Class or Sector)
- Forecast of Sales to Direct Access Customers – Form 6 (ESP Report of Loads and Resources under Contract)

Repeating its sales forecast may not be possible, however, if the IOU's previous response (provided in Forms 1.1 and 6) was based on the IOU's own method of classifying "commercial" and "industrial" customers. In completing Form 1.c, each IOU must use the same definitions of "commercial" and "industrial" as it used to complete Form 1.b (IOU-Bundled Customer).

Electricity sales projections to direct access customers are to be divided between residential and non-residential only.

General Instructions for Publicly Owned Utility Forms 1.a through 1.c

Forms 1.a through 1.c (POU) were designed to collect cost and sales information useful for calculating projections of average-annual prices per kilowatt-hour by customer type. Form 1.a collects a detail breakout of each POU's projected annual revenue requirements. Form 1.b captures how each POU will recover its projected annual revenue requirements by customer type. Form 1.c gathers each POU's forecasted retail electricity sales by customer type.

Specific Instructions for Form 1.a (POU)

The purpose of this form is to collect annual projections of total revenue requirements without double-counting any costs. Greater detail is requested in the generation-cost category, because it is the largest portion of POUs' electricity rates.

The seven major revenue-requirement categories in this form are: Generation, Transmission, Distribution, System Debt Service, Nuclear Decommissioning, Public Benefit Programs, Payments In Lieu of Taxes and Other Municipal Fees, Transfers to Municipal Government General Fund, Rate Stabilization Fund Contributions, and Retained Earnings.

The following instructions explain what information to report under each revenue requirement category.

Generation Revenue Requirements

The POUs are requested to base their future revenue requirement estimates upon the quantities and types of electricity that they reported to the Energy Commission in their electricity-resource-plan submittals (i.e., responses in Supply Forms S-1 and S-2). The generation section of Form 1.a (POU) does not ask the POUs how much electricity they expect to generate or purchase each year.

The generation section of Form 1.a (POU) asks for cost data for two broad categories of generation: utility-owed generation by fuel/resource type and purchased power. Utility-owned generation is subdivided into six types of power plants:

- Nuclear
- Conventional Hydroelectric
- Hydroelectric Pumped Storage
- Natural Gas-Fired
- Coal, and
- Renewables

Natural gas-fired generation includes both combined cycle power plants as well as single cycle ("peaking") units.

Each POU is requested to report its estimate of future annual costs for each type of utility-owned generation using the following cost categories: operations and maintenance (O&M) expenses, fuel, depreciation (non-cash), and "all other" costs. Form 1.a (POU) acknowledges that POU's depreciation expenses are non-cash expenses.

"All other" costs should exclude debt service costs, because a separate line in Form 1.a (POU), titled "System Debt Service," is provided for reporting those costs.

Conventional hydroelectric generation is defined as large hydroelectric dams. The "fuel" costs for conventional hydroelectric generation are for water rights. For hydroelectric pumped storage facilities, "fuel" costs are for electricity used for off-peak pumping. Natural gas-fired generation fuel costs would typically include natural gas supply contracts, but may also include a POU's annual costs associated with its investment in natural gas properties.

For utility owned/retained generation that is natural gas-fired or coal-fired, please provide the average annual fuel price used to project natural gas and coal fuel costs. Please report these average annual prices (both natural gas and coal) in dollars per million British Thermal Units.

The Energy Commission-provided Excel Worksheet will subtotal each year's projected costs for each type of utility-owned generation. In addition, it will sum

up each year's total costs for utility-owned generation.

Nuclear decommissioning costs should not be included in the utility-owned-generation section of this form. A separate line item on this form exists for projecting nuclear decommissioning costs.

Projections of POUs' general and administrative (G&A) costs related to owning generating facilities should be aggregated and reported on the line titled, "General and Administrative Costs…" They need not be reported separately for each type of generation as an "other" cost.

Separate revenue requirements data are requested for each of the following subcategories of purchased power:

- Supply Contracts
- Residual market transactions
- Payments to Control Area Operator for market charges, and
- G&A Costs for Contracts, Transactions, and Payments

Under the "Supply Contracts" subcategory, the Energy Commission staff requests that each POU report costs for each of the following types of supply contracts:

- Renewables
- Bilateral Contracts for Federal Power
- Bilateral Contracts with Joint Powers Agencies (JPAs), and
- All Other Bilateral Contracts

Bilateral contracts for federal power would include purchases from the Western Area Power Administration and from the Bonneville Power Administration.

Form 1.a (POU) also requests revenue requirement estimates for residual market transactions (i.e., short-term and spot market purchases). Specifically, Energy Commission staff requests that a forecasted annual cost for residual market transactions be reported by contract type:

- Capacity and
- Energy

Energy Commission staff asks, through Form 1.a (POU), for each POU's estimate of its payments to its Control Area Operator (e.g., California Independent System Operator or other) for market charges, including ancillary services, market uplifts, and energy.

Transmission Revenue Requirements

This section of Form 1.a (POU) is for collecting information about the costs associated with owning transmission assets and with transmission-system operations. Energy Commission staff requests that each POU report its transmission-related cost information using the following, five subcategories:

- Operations and maintenance
- Depreciation (non-cash)
- Payments to Control Area Operator for Transmission Services
- Payments to JPAs for Transmission Services and Investments, and
- Other Costs, excluding debt service (e.g. G&A)

Payments to a Control Area Operator include transmission access charges, grid management charges, and the FERC annual charge assessment.

If a POU's transmission revenue requirement includes costs (e.g., debt-service, depreciation, and O&M) associated with an ownership share in a JPA's transmission assets, then the POU should report these costs as Payments to JPAs.

Distribution Revenue Requirements

This section of Form 1.a (POU) is for collecting cost information about each POU's distribution assets. Energy Commission staff requests distribution asset-related cost information be forecasted using the following subcategories:

- Operations and maintenance
- Depreciation (non-cash)
- Advanced Metering Systems
- Other Costs, excluding debt service (e.g. Customer Service and Information, Salaries, G&A)

The Energy Commission staff included "Advanced Metering Systems" in the Distribution section of this form, because it anticipates that some POUs may deploy advanced-metering systems throughout their service territories during the 2007 to 2018 forecast period.

System Debt Service

This section is for estimating the annual costs to repay bonds issued by the POU to finance additions and improvements to its generation, transmission, and distribution system.

Nuclear Decommissioning

Each POU with an on-going financial obligation to pay for nuclear decommissioning is requested to provide information about these costs in this section of Form 1.a (POU).

Public Benefit Programs

This section of Form 1.a (POU) is for collecting annual cost information on each of the following public purpose programs:

- Low-income and medical rate-discount programs
- Energy-efficiency
- California Solar Initiative
- All other public benefit programs

Costs associated with conducting these types of programs include salaries, customer financial incentives, marketing and promotional expenses, measurement and evaluation, consultant services, and general and administrative expenses.

Energy Commission staff request a separate revenue requirements estimate be provided for implementing the California Solar Initiative. The costs of implementing all other public good or public benefit programs (e.g., demand response; load management; new technology research, development and demonstration; "Green Buildings") should be reported as an aggregated number.

Payments in Lieu of Taxes and Other Municipal Fees

Form 1.a (POU) includes this line for POUs to forecast any annual revenue requirements associated with payments to their city or county government for "in lieu" property taxes or other municipal fees, such as "right of way" fees.

Transfers to Municipal Government General Fund

POUs that are electric utility departments of a city government are asked to report their projected annual transfers of electric-utility revenues to their city's General Fund.

Rate Stabilization Fund Contributions

The Energy Commission requests each POU to forecast its annual contributions to a rate stabilization fund, if the POU maintains such a fund.

Total Revenue Requirements

The Excel spreadsheet provided to each POU will sum up automatically all of the separate costs and subtotals to produce a total, annual estimate of revenue requirements. This line in the spreadsheet will be carried forward to the top rows of Form 1.b (POU).

Specific Instructions for Form 1.b (POU)

Form 1.b (POU) was created to determine how each POU will allocate its revenue requirements among its customer classes. Energy Commission staff requests each POU to provide a detailed break-out of its total forecasted revenue requirements that it will collect through its two, largest rate components: generation and distribution.

All other revenue requirement categories (e.g., transmission, nuclear decommissioning, public benefit programs) are combined on Form 1.b (POU). Each POU is asked to sum up annual revenue requirements for all of these other categories and then show on Form 1.b (POU) how much of this sum of "other revenue requirements" will be collected annually from each class of customer, as defined below.

Form 1.b (POU) identifies five classes of customers:

- Residential/Domestic
- Commercial
- Industrial
- Agricultural, and
- All other customer classes (e.g., street lighting)

The customer classes listed above match those used by Energy Commission staff to forecast electricity demand, however, they may not match how some utilities define their commercial and industrial customer classes. Some POUs define their commercial and industrial customers by size only (e.g., "small," medium," and "large"), based on average monthly consumption and have rate schedules for similar-sized commercial and industrial customers. For example, small commercial and small industrial customers can be on the same rate schedule.

Thus, completing Form 1.b (POU) may be a challenge for POUs with size-based systems for classifying commercial and industrial customers, because rate schedules (and forecasted sales revenue) are not linked directly to discrete classes of "commercial" and "industrial" customers.

The Energy Commission staff recognizes this problem and recommends the following, temporary solution. To overcome potential differences in how the Energy Commission and individual POUs define "commercial" and "industrial"

classes, the Energy Commission staff requests that those POUs with size-based rate schedules use the following approach to assign rate schedules to either the commercial or industrial classes:

- Use rate schedules for “small” and “medium”-sized customers as the proxy for all “commercial” customers
- Use rate schedules for “large”-sized customers as the proxy for “industrial” customers.

Form 1.b (POU) focuses on the POU’s two largest categories of revenue requirements: generation and the distribution. All other revenue requirement categories (e.g., transmission, Public Benefit Programs, etc.) should be aggregated.

Specific Instructions for Form 1.c (POU)

This form collects each POU’s projected sales by selected customer class. The Energy Commission staff requests each POU to provide a forecast of retail sales of electricity – in megawatt-hours (MWH) – by the following customer classes:

- Residential/Domestic
- Commercial
- Industrial
- Agricultural, and
- All Other Customer Classes

The Energy Commission staff strongly prefers that forecasted retail sales provided by each POU in Form 1.c duplicate the sales forecasts submitted earlier to the Energy Commission in Form 1.1 (Retail Sales of Electricity by Class or Sector).

Repeating its sales forecast may not be possible, however, if the POU’s previous response (provided in Form 1.1) was based on the POU’s own method of classifying “commercial” and “industrial” customers. In completing Form 1.c, each POU must use the same definitions of “commercial” and “industrial” as it used to complete Form 1.b.

General Instructions for Energy Service Provider Forms 1.a through 1.c

Forms 1.a through 1.c (ESP) were designed to collect cost and sales information useful for projecting average-annual prices per kilowatt-hour by type of DA customer, residential or non-residential. Form 1.a collects a detailed breakout of each ESP's projected total costs. Form 1.b captures how each ESP will recover its projected annual costs from each type of DA customer. Form 1.c gathers each ESP's forecasted retail electricity sales by type of DA customer.

Specific Instructions for Form 1.a (ESP)

The Energy Commission staff requests each ESP to provide an annual forecast of its total costs to serve its DA customers. Three cost categories are provided:

- Generation
- Transmission, and
- All Other Costs

The generation cost category is divided further into the following three subcategories:

- Supply contracts
- Residual Market Transactions, and
- Payments to the California ISO for Market Charges

The Energy Commission staff is requesting an annual estimate of the total costs for all supply contracts, regardless of resource type or ESP-ownership interest. Supply contracts defined as bilateral contracts for energy and/or capacity entered into in advance of the delivery time. Residual market transactions are short-term or spot-market purchases of electricity from suppliers other than the California ISO. "Payments to the California ISO" is for projecting the following types of market charges: ancillary services, market uplifts, and energy.

Form 1.a (ESP) also requests annual estimates for two types of transmission costs:

- Payments to California ISO for Transmission Services
- Payments for Firm/Financial Transmission Rights

The three types of California ISO transmission services are transmission access charges, grid management charges, and the FERC annual charge assessment.

In addition to these charges, each ESP is requested to estimate its future costs for firm or financial transmission rights.

Each ESP is requested to project *all other costs* not reported as generation or transmission-related costs. The "all other costs" category would include the ESP's costs for marketing, customer billing and information services, metering and billing contracts with an IOU, and general and administrative expenses.

Specific Instructions for Form 1.b (ESP)

Using Form 1.b (ESP), the Energy Commission staff requests each ESP to allocate its estimated total annual costs – from Form 1.a (ESP) – between two types of DA customer: residential and non-residential. An ESP's non-residential customers are defined as its commercial, industrial, and agricultural accounts. It also requests that each ESP allocate these cost estimates between the following three IOU service territories: PG&E, SCE, and, SDG&E. Specifically, each ESP is requested first to allocate total estimated costs to residential and non-residential DA customers, and then for each customer type, to allocate its costs according to which IOUs are providing that customer type with energy-delivery service.

Specific Instructions for Form 1.c (ESP)

Form 1.c (ESP) collects each ESP's annual sales estimates in MWh for two types of DA customers: residential and non-residential. The forms also collect annual sales projections for each type of DA customer by IOU service territory.

In the Energy Commission's Demand Form 6, ESPs were asked to forecast sales and number of customer accounts by utility service territory. Form 1.c is used to request the same sales estimates by utility service territory, but at an additional level of detail: by DA customer type. The Energy Commission staff requests that the forecasted sales volumes – disaggregated by customer type – match those provided in Form 6.

Instructions for Form 2
Utility-Specific Electricity Sales in 2005 by Commercial/Industrial Rate Schedule and Selected NAICS Categories

Many California electric utilities classify their commercial and industrial customers by size (e.g., small, medium, large, based on average monthly electric demand) rather than having separate classes for commercial and industrial customers. They assign businesses to rate schedules using this classification method; both commercial and industrial customers of similar size buy power under the same rate schedules. The purpose of this form is to enable the Energy Commission staff to determine – for utilities that classify their commercial and industrial customers by size only – which rate schedules represent a utility's commercial customers and which represent its industrial customers.

A utility's current rates are the starting point for Energy Commission forecasts of retail electricity prices. Since the Energy Commission staff forecasts retail prices by customer type (e.g., commercial, industrial) rather than size, it must select rate schedules for each utility that represent current commercial and industrial retail prices. In the past, Energy Commission staff assumed that a utility's rate schedules for "small" and "medium"-sized business customers were serving its "commercial" customers and its rate schedules for "large" businesses were serving its "industrial" customers. Information collected through this form will confirm or disprove that assumption.

With assistance from the Energy Commission's Demand Analysis Office, the following NAICS category codes were selected to define "commercial" businesses: 115, 2331, 326212, 42, 44-45, 48841, 493, 512, 514, 518-519, 52, 53, 54, 55, 561, 61, 62 (excluding 62191), 71, 72, 81 (excluding 81293 and 814), and 92 (excluding 92811).[4] The following NAICS category codes were selected to represent "industrial" businesses: 11331, 21, 23, 31-33, 511, and 54171.

The following IOUs and POUs have business-class rate schedules based on customer size:

- IOUs: PG&E, SDG&E, SCE
- POUs: Anaheim, Glendale, Imperial Irrigation District, LADWP, Pasadena, Riverside, Roseville, and SMUD

The Energy Commission staff designed a unique form for each of these utilities that identifies the rate schedules in question by title and code. These rate

[4] An explanation of NAICS category codes are provided at http://www.census.gov/epcd/naics02/naicod02.htm.

schedules were selected by Energy Commission staff, because the staff believe they represent the ones most commonly used by the utility's commercial and industrial customers for buying electric service.

Only the electric utilities listed above are asked to provide a break-out of their total annual electricity sales (in MWh) for 2005 to commercial and industrial customers under these selected rate schedules. The Energy Commission staff is not asking for a detailed break-out of electricity sales by each NAICS category code (e.g., warehousing and storage, NAICS 493).

Energy Commission staff will use this electric sales information to determine which rate schedules serve mostly commercial accounts and which serve mostly industrial ones. In the event that industrial accounts do not dominate any of the utility's selected rate schedules, the staff will select the one rate schedule with the highest volume of electric sales to represent industrial customers.

Instructions for Form 3
Investor-Owned Utility Residential Electricity Sales by Baseline Percentages

The residential customers of California's IOUs pay for electricity according to a five-tier price structure. Higher prices per kilowatt-hour apply to electricity consumed in higher tiers. For example, Tier I electricity may be priced at $0.11 per kWh, while Tier 5 electricity may be priced at $0.35 per kWh.

The five tiers represent the following percentages above defined "baseline" quantities:

- Tier I – 100 percent
- Tier II – 130 percent
- Tier III – 200 percent
- Tier IV – 300 percent
- Tier V – More than 300 percent

Baseline quantities vary by IOU-specified "territories" that reflect climatic differences within the IOU's service area. Baseline quantities also vary by season (i.e., summer versus winter) and by whether the residential customer relies on electricity for space and water heating (e.g., "all electric" customers).

The Energy Commission staff requests that each IOU use Form 3 to provide a break-out of its residential electricity sales in 2004 and in 2005 by baseline quantity (in 10 percent increments), territory, and season. It also requests data on the average number of basic residential accounts and "all electric" residential accounts in each territory.

Instructions for Form 4
Pricing Factors for Purchased Power

The purpose of Form 4 is to collect data that reveal how prices paid for electricity that is purchased through bilateral contracts can change during the term of those contracts. Cost components within a supply contract (e.g., O&M, fuel) are allowed to increase or decrease according to an escalation factor or price index assigned to each cost component. The data collected through Form 4 will enable the Energy Commission staff to analyze the sensitivity of purchased power to changes in the price of natural gas and other escalators.

Each IOU, POU, and ESP is requested to divide its purchased power costs into cost components that vary by the same escalation factor or price index. The following list provides examples of purchased-power expense categories:

- Those indexed to the price of natural gas
- Those that vary with an inflation index, such as the Producer Price Index or Consumer Price Index, or that are based on a published price for wholesale electricity, such as *Bloomberg*, and
- Those that do not escalate, such as the compensation paid for capacity.

Form 4 for IOUs has four types of power supply contracts: DWR contracts; qualifying facility (QF) contracts; contracts for renewable energy, excluding QF contracts; and all other bilateral contracts. For POUs and ESPs, Form 4 has two types of power contracts: contracts for renewable energy, excluding QF contracts; and all other bilateral contracts.

For each type of contract, each respondent shall provide the subtotal of its power purchases will be tied to the price of natural gas. On the next line, the respondent shall provide the natural gas price escalation factor that will be used. All power purchase expenses tied to some other price escalator or index can be subtotaled together and provided on the next line. On the next line, the respondent shall provide the weighted average of the escalation factors that will affect the price of the above portion of purchased power. In the last of line of each contract-type section, the respondent is asked to provide the subtotal of its power purchases that are fixed-price and will not change during the term of any supply contract.